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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,337	11/25/2003	Il Nah	P24481	3926
7055	7590	01/03/2006	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			KYLE, MICHAEL J	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 01/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/720,337	<b>Applicant(s)</b> NAH, IL	
	<b>Examiner</b> Michael J. Kyle	<b>Art Unit</b> 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-~~20~~<sup>4</sup> are rejected under 35 U.S.C. 103(a) as being unpatentable over Gauron (U.S. Patent No. 4,902,180) in view of Kann (U.S. Patent No. 2,415,695). With respect to claims 1 and 8, Gauron discloses an insert nut having a shape defined by a plurality of sidewalls (78, 90, 92, for example), and at least one circumferentially extending groove (84, 86, 88) along a longitudinal dimension of the insert nut. The plurality of sidewalls are configured to provide a plurality of gaps (see figure 17) between the sidewalls of the insert nut and a surface of an installation hole of the carrier. Plastic is injectable into the plurality of gaps (via 94, 96) and into the at least one groove. Gauron also discloses a method of mounting the insert nut in an insert hole (figure 17). Gauron does not show the insert nut to have a polygonal shape.
3. Kann teaches an insert nut (11) of polygonal shape in order to secure the nut against turning (column 3, line 30). The insert nut forms a plurality of gaps between its sidewalls and the carrier, where the gaps extend along the entire length of the insert nut. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Gauron as taught by Kann in order to secure the nut against turning.
4. With respect to claims 2, 3, 9, and 10, Kann discloses the insert nut can have any of polygonal shapes, including a hexagon or pentagon (column 3, lines 2-4).

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5. With respect to claims 4, 5, 7, 11, 12, and 14, Gaaron discloses the longitudinal dimension of the insert nut corresponds to a thickness of the carrier, and the groove is circular (figures 13, 14 and 17). Gaaron also shows a plurality of grooves along the longitudinal dimension.

6. With respect to claims 6 and 13, neither Gaaron nor Kann disclose the groove to be in the shape of a pentagon. However, Kann discloses that polygonal shapes may be used to secure against turning within the hole. It would have been obvious to one having ordinary skill in the art at the time of the invention to make the grooves in the shape of pentagon in order to provide resistance to torque as the bolt is fastened.

7. With respect to claims 15 and 18, Gaaron, modified as taught by Kann, teaches each gap to be of uniform size and provides an inlet port for plastic injection

8. With respect to claims 16 and 19, Kann teaches the polygonal shape i sized to be substantially inscribed in the installation hole of the carrier (14 of Kann)

9. With respect to claims 17 and 20, the combination of Gaaron and Kan teaches each gap is defined by adjacent vertices (of Kann) and a segment of the installation hole between the vertices.

10. With respect to claims 21-24, the combination of Gaaron and Kann teaches a polygonal shape defined along, and uniformly sized throughout the entire length of the insert nut. Gaaron shos a uniform size shape along the length of the insert nut. Kann teaches the polygonal shape.

***Response to Arguments***

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11. Applicant's arguments filed September 30, 2005 have been fully considered but they are not persuasive. Applicant argues that there would be no motivation to combine the teachings of Kann with Gauron. Examiner respectfully disagrees. Gauron discloses all the claimed elements with the exception of a polygonal shape. Kann teaches an element having a polygonal shape to secure the device against turning. One of ordinary skill in the art would look to Kann's teaching when trying to prevent rotation of an element within another element.

12. Applicant argues that the combination of Gauron and Kann fails to disclose a method for securing an insert nut within an insert hole, where the insert nut has a polygonal shape defined by a plurality of sidewalls. Examiner respectfully disagrees. As noted in the rejection above, Gauron discloses an insert nut in a carrier a shape defined by sidewalls. Gauron does not disclose the polygonal shape. Kann cures this deficiency.

### ***Conclusion***

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

14. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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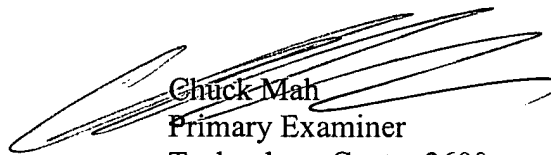
however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Kyle whose telephone number is 571-272-7057. The examiner can normally be reached on Monday - Friday, 8:30 am - 5:00 pm.

16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mk



Chuck Mah  
Primary Examiner  
Technology Center 3600